INVOLUNTARY MOVEMENT DISORDER

Movement disorder are neurologic syndromes characterized by either an excess of movemen or a paucity of voluntary and automatic movements, unrelated to weakness or spast

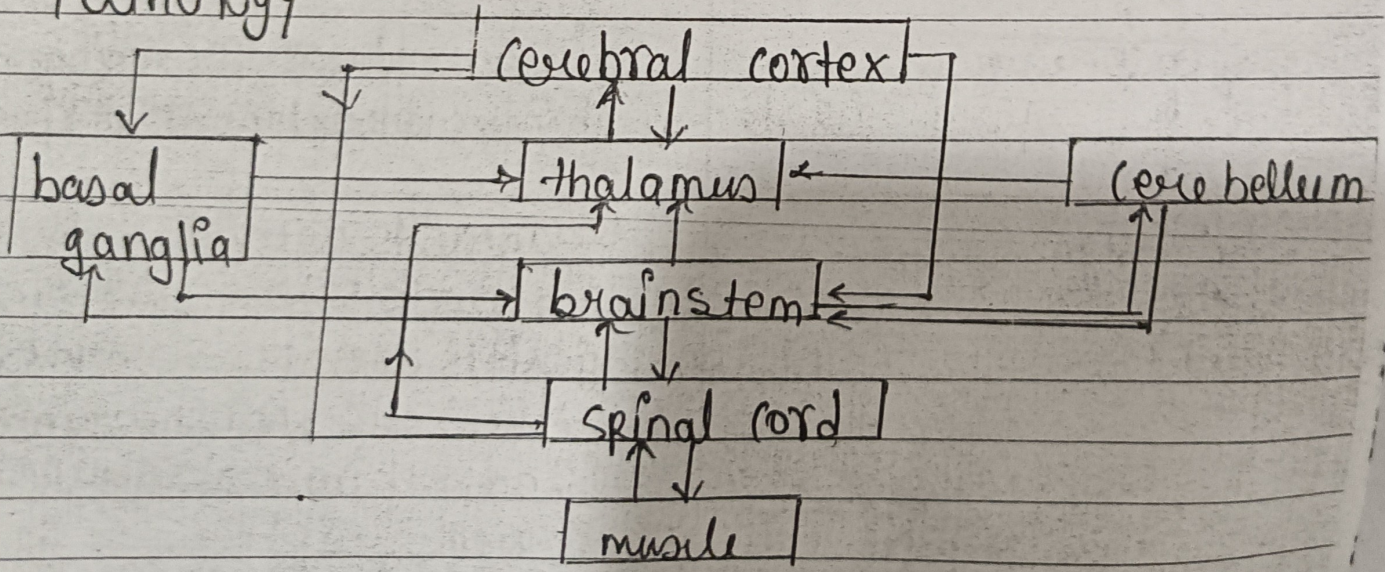
* HYPERKINETIC :-

1. Restless leg syndrome.
2. Tremor.
3. Dystonia.
4. Myoclonus.
5. Chorea.
6. TICS.
7. adhtosis.
8. ~~hemipelbopus~~. hemibellismus.

* HYPOKINETIC [slowness of mov.]

1. Parkinson disease.
2. Parkinson plus syndrome.

Pathology -



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1. Tremor :- Rhythmic oscillations caused by intermi-
-ttent muscle contractions.

* Rest Tremor :- This is pathognomonic of parkinson disease.

→ It is characteristically pill rolling & usually presents asymmetrically.

* PHYSIOLOGICAL TREMOR :-

→ This the most common type of action tremor & occurs at a frequency of 8-12 Hz.

→ It is a common in normal subjects & exaggeration occurs in anxiety & in other situations.

23/4/21

Causes of Exaggergated Physiological Tremor

1	Anxiety	
2	fatigue	
3	endocrine	Thyrotoxicosis, causing disease, pheochromocytoma, hypoglycemia
	Drugs	β-agonists, theophylline, caffeine, lithium, dopamine, agonists, sodium valproate, tricyclics, phenothiazines, amphetamines.
	Toxins alcohol withdrawal	Mercury, lead, arsenic

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2. CHOREA :- Dance like, unpatterned movement approximate a purpose. [spontaneous]

eg - adjusting clothes, checking ⌚ watch]. often re & may involve proximal or distal muscle gr

→ Chorea [Gr. "dance"] is characterized by involi irregular, purposeless, random, non-rhythmi hyperkinesias.

→ Movements are spontaneous, abrupt, brief, re jerky & unsustained..

→ Movements are actually random & aimless.

→ They are present at rest but ↑se by activity tension, emotional stress & self-conciousne

→ pt may be able to temporarily & partially the movement.

causes - 1) b... 2) Hun...

→ disappear in sleep.

inherited ... nerve... break down ...

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3. ATHETOSIS :- Athetosis means "without positions."

→ Involuntary, irregular, coarse, somewhat sl & writhing or squirming in character (twis

→ Hyperkinesias are slower, more sustained, & in amplitude than those in chorea.

→ May involve the extremities, face, neck, & th

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- In the extremities they affect mainly the distal portions, the fingers, hands & toes.
- Movements are characterized by any combination of flexion, extension, abduction, pronation & supination, often alternating & in varying degrees.

* Causes :-

1. May be congenital due to perinatal injury to the basal ganglia.
2. May be present in association with other neurological deficits (athetotic cerebral palsy).
3. It may be either unilateral or bilateral.
4. The predominant pathologic changes are in the caudate & putamen, there may also be cortical involvement.
5. Many pt have features of athetosis plus chorea.
6. choreoathetosis refers to movements that lie blw chorea & athetosis in rate & rhythmicity & may represent a transitional form.

24/4/21 TNP

4. HEMIBALLISMUS :- wild, huge, amplitude, flinging movements on one side of the body, commonly affected proximal limb muscles but can also affecting the trunk.

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1. Dramatic neurologic syndrome of wild, flinging (forceful), incessant (unilateral uninterrupted continuous) movements that occur on one side of the body.

2. Due to infraction or hemorrhage in the region of the contralateral subthalamic nucleus.

3. Results in disinhibition of the motor thalamus & cortex, resulting in contralateral hyperkinetic move

* Difference blw. :-

	Chorea	Ballismus	Athetosi
1.	Rapid	Rapid	slow
2.	Involuntary	Involuntary	Involunt
3.	Non-stereo-typical	Non-stereo-typical	Non-Si typic
4.	Semi purposeful / non purposful	non-purpose-ful	non-pu-f
5.	Dance like	violent flinging movement	wil
6.	more on distal	more an proximal	Has -nsity -cling

5. MYOCLONUS :- Single or repetitive, abrupt, brief, rapid, lightning-like, jerky, arrhythmic, asyngergic, involuntary contractions involving portions of muscle, entire muscles, or groups of muscles.

→ Movements are quicker than chorea.

→ Seen principally in the muscles of the extremities & trunk, but the involvement is often multifocal, diffuse, or widespread.

→ May involve the facial muscles, jaws, tongue, pharynx & larynx.

→ May be successive or simultaneous involvement of many muscles.

→ Myoclonus may appear symmetrically on both sides.

→ Such synchrony may be an attribute unique to myoclonus.

6. DYSTONIA :- Is defined as an abnormal movement characterized by sustained muscle contraction, frequency causing twisting & repetitive movements, which may progress to prolonged abnormal posture.

→ Dystonia is autosomal dominant in inheritance.

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7) MYOCLONUS :- is defined as sudden, ... -like movements that are ... random and range in severity from mild ... severe enough To move the whole body.

→ It can be physiologic & can be seen after ... -se, excessive fatigue, or sometimes when ... individual is falling asleep, such as hypna... jerks.

8) TICS :- Tics are repetitive semi-purpo... movements such as blinking or scru... up of the eyes.

→ They are distinguished from other involuntary ... -ents by the ability of the pt to suppress ... occurence, at least for a short time.

→ An isolated tic may be no more than a mild embarrassment, but may become frequ... at certain times in childhood & then disappe...

→ The uncommon syndrome of gilles de la Tour... consist of a tendency to multiple tics & odd vocalisations, with obsessive behavioural abno... -malities.

→ The pathogenic basis is not understood, but there may be some po response to major tranquillisers.

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